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NATIONAL INCOME: THIRD QUARTER OF 1951

The Aggregate

Table I

Seasonally Corrected Gross National Product at Factor Cost

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Agriculture, etc. ...	615	615	605	605	610	605	615	630
2. Mining & Quarrying	390	395	395	400	393	445	460	455
3. Manufacturing ...	4360	4490	4445	4380	4418	4010	4525	5115
4. Building ...	635	615	615	620	624	690	670	665
5. Utilities	250	250	255	255	251	265	270	275
6. Services	3870	3900	3940	3990	3925	4110	4130	4145
7. Total Business Sectors	10120	10265	10255	10250	10221	10125	10670	11285
8. Government ...	1190	1205	1235	1295	1227	1325	1380	1410
9. Other	470	495	540	580	522	555	535	555
10. Gross National Product ...	11780	11965	12030	12125	11970	12005	12585	13250

Table II

Seasonally Corrected Gross National Product at 1950 Factor Cost

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Agriculture, etc. ...	645	625	585	585	610	585	590	600
2. Mining & Quarrying	390	395	395	395	393	405	420	410
3. Manufacturing ...	4240	4390	4455	4585	4418	4525	4565	4625
4. Building ...	610	625	630	630	624	580	580	625
5. Utilities	240	250	250	260	251	265	265	265
6. Services	3885	3920	3960	3935	3925	4020	3965	3925
7. Total Business Sectors ...	10010	10205	10275	10390	10221	10380	10385	10450
8. Government ...	1215	1215	1230	1245	1227	1275	1295	1310
9. Other	520	520	525	525	522	525	525	530
10. Gross National Product ...	11745	11940	12030	12160	11970	12180	12205	12290

The most conspicuous feature of Table I is the very rapid increase in the total national income which has occurred since the first quarter of 1951: in a period of only six months, the national income, expressed in annual rates, has apparently risen by over £1,200m., a proportionate increase of

10 per cent. It is clear however, from Table II, which gives estimates of the movement of gross national product in real terms, that only a small part of this increase can be accounted for by a rise in real output, and that real output has in fact risen only at a slow rate. This divergence between the change in value and the change in volume of output is quite spectacular in the Manufacturing sector, which accounts for by far the greater part of the increase in gross national product. According to our estimates, the value of output of Manufacturing in the third quarter of 1951 was over 25 per cent greater than in the first quarter, while the increase in volume was only about 2 per cent. Out of the £1,200 m. increase in this period in the gross national product, over £1,000 m. can be attributed to the rise in what we call unit factor cost in Manufacturing.

The rise in unit factor cost can be partly explained by changes in unit labour cost, since wage-rates, and probably salary-rates also, have been going up faster than the volume of manufacturing output. The main reason, however, is that output prices have continued to rise while input prices have risen more slowly, or have actually fallen,[1] so that profits as we define them have increased. During the third quarter input prices fell quite sharply, and the rise in our unit factor cost index is due more to this fall than to a rise in output prices. The increase in national income during the second and third quarters of 1951 is therefore the counterpart of the dip in the first quarter, which was discussed in our last article.[2] Over a period as short as three months, the movement of profits, and of the value of the gross national product, now depends to a large extent on the relationship between output and input prices; and where ' first-in-first-out ' systems of accounting are general, this relationship will tend to vary greatly when the prices of imported raw materials are fluctuating. If we had made use of a lagged index for input prices—or to put the same point in another way, if we had defined profits so as to include stock appreciation[3]—we should have obtained a different and far smoother series of estimates for the value of manufacturing output.

It can be seen that in the last quarter of 1950, and the first quarter of 1951, the two series diverge sharply because of the failure of output prices

Value of Output in Manufacturing; Seasonally Corrected Annual Rates

	1950				1951		
	I	II	III	IV	I	II	III
1. Using current input prices ...	4360	4490	4445	4380	4010	4525	5115
2. Using lagged input prices*	4495	4640	4720	4895	4720	4785	4890

* This lagged index of input prices is a weighted average of the first index, weights of one-sixth, one-third, one-third and one-sixth being given to the current quarter and each of the three preceding quarters respectively.

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[1] The Board of Trade index for basic materials (excluding fuel) for non-food manufacturing industries, which carries most of the weight in our input price index, fell precipitately from 220 (June 1949=100) in March to 177 in September.

[2] *The Crisis of* 1951, BULLETIN for October 1951.

[3] Whether positive or negative.

to keep pace with input prices. When in the second and third quarters this relationship is reversed, the first series rises steeply and during the third quarter overtakes the second. The two series would only coincide if output and input prices moved together, as they would if ' last-in-first-out ' systems of accounting were the rule.

It should be emphasised that although these sharp fluctuations in profit margins, and in unit factor cost, are only apparent in our estimates for the Manufacturing sector, similar changes have almost certainly occurred in the other sectors, for example in services. The reason for the comparative stability of the other series is that we have no means of estimating changes in input prices for the sectors concerned. If we had enough information to construct such indices, so that we could derive indices of unit factor cost similar to that which we use for manufacturing, it is likely that the other series would fluctuate in much the same way as our estimates for Manufacturing, though of course these fluctuations might well differ both in timing and in amplitude. In so far as this is true, our estimates of the total gross national product at current prices, although they show such remarkable changes from quarter to quarter, are in fact unrealistically smooth.

So far as real output is concerned, the changes have been far less spectacular. Building output recovered in the third quarter from the low level to which it had fallen in the first half of the year,[1] while the output of the Manufacturing sector has continued to climb upwards slowly, and apparently exceeded the level which it reached in the last quarter of 1950. The figure for Services shows a fall from the first quarter, which reflects the fall in the volume of consumption, which we use as one of our indicators for this sector. Employment in Administration and the Armed Forces has continued to increase steadily, and this is reflected in the increase shown in the real output of the Government sector.

The behaviour of output in the individual trades which comprise the manufacturing sector has been remarkably variable. The production indices for each of these trades, and for the three main groups in which they are classified, are shown below. In this table the index-numbers relate to four-monthly periods, rather than to quarters, since little reliance could be placed on quarterly seasonal correction factors for some of the individual series.[2]

It is clear from the table that in many industries the growth of production

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[1] The Building series remains somewhat mysterious. The gross output of Building is still shown as increasing over the winter of 1950–51, despite the drop in the production index. The numbers engaged in Building did fall off to some extent in the early part of the year—rather more than usual in fact—but hardly enough to account for the fall in output.

[2] There are two main reasons for this. The first is that random fluctuations are more important compared to seasonal fluctuations in cases where an industry's index is based on a small number of series, so that seasonal patterns are more stable for longer periods. The other is that a quarterly grouping involves awkward division : Easter may fall in either the first or second quarter, and allowance for this is difficult in the case of individual industries ; and the effect of the summer holidays may vary between the second and third quarters because of holiday ' staggering ', which is similarly easier to deal with for sectors than for industries.

Seasonally Corrected Manufacturing Output by Four-Monthly Periods (1946=100)

	China	Glass	Bricks	Total Heavy Industries	Ferrous Metals	Non-Ferrous Metals	Engineering, etc.	Vehicles	Other Metal Goods	Precision Instruments, etc.	Chemicals	Total Textile Group	Textiles	Clothing	Leather
1948															
I	135	117	155	125	115	116	139	114	111	120	120	118	124	111	104
II	144	122	148	126	116	114	135	122	110	127	119	125	127	108	98
III	144	127	147	129	119	114	137	129	113	136	131	124	129	119	102
1949															
I	147	134	148	132	121	111	137	139	112	138	124	126	131	121	98
II	151	126	156	138	124	109	142	151	114	156	123	132	135	123	106
III	148	130	160	142	125	110	141	162	116	172	124	134	140	125	104
1950															
I	150	132	157	146	127	116	147	166	118	189	132	139	145	130	107
II	153	141	165	152	129	125	153	173	120	202	144	138	149	119	113
III	164	140	169	158	131	129	159	182	120	211	151	143	151	132	116
1951															
I	167	141	171	156	131	135	163	167	123	211	154	145	150	139	105
II	162	151	179	159	133	137	165	171	(126)		158	142	153	122	102

		Total Food Group	Food	Drink and Tobacco	Wood Products	Paper and Printing	(Tyres, etc.) Other
1948	I	106	106	105	106	104	152
	II	109	111	105	106	108	151
	III	114	118	108	110	121	146
1949	I	114	117	109	116	130	142
	II	116	120	110	124	139	146
	III	115	120	110	126	150	152
1950	I	120	128	109	127	162	164
	II	119	128	107	125	168	171
	III	119	130	105	134	170	181
1951	I	119	128	107	138	158	141
	II	115	124	103		163	(186)

has been remarkably steady, and that the fluctuations in the output of the Manufacturing sector as a whole must be attributed, as in 1950, to the vagaries of certain particular industries. Out of eighteen individual industries twelve show no decline in output during the first four months of 1951; and in certain cases where one might have expected production to have been quite seriously affected by shortages of critical materials—such as non-ferrous metals and engineering products—it in fact continued to rise fairly steadily. The fall in the output of Manufacturing in the first four months of 1951 (as compared with the last four months of 1950) resulted almost entirely from a sharp decline in four series—vehicles, leather, paper and printing, and ' other '—which offset the slightly rising tendency of output in other industries. Each of these four industries had experienced a rapid increase in production during 1950—far more rapid than elsewhere in Manufacturing—which was largely due to an improvement in supplies of raw materials; and there can be no doubt that the fall in the early part of 1951 was to some extent the result of interruptions in the flow of materials.[1]

During the period May-August 1951, the raw materials situation in these industries apparently improved to a certain extent, so that output began to rise again; but in no case did it recover to the level which it had reached in the last part of 1950. In most other industries output continued to rise, but there were some significant exceptions, which had the effect of slowing down the rate of increase in Manufacturing as a whole. Of these perhaps the most obvious is clothing, where the very considerable fall in output clearly reflects the unusually low volume of consumption in the second and third quarters. It seems likely that this fall will soon be reflected in the series for textiles. A similar explanation suggests itself for the decline in drink and tobacco which is of about the same order of magnitude as the fall in (seasonally corrected) real consumption. The other cases in which output declined—food and china—cannot be accounted for so easily. Food consumption has remained stable in real terms, so that there is no evidence of a fall in demand. In

[1] In the case of ' Other ' trades, this is less likely, since the most important member of this group is tyre production, and this industry was probably not much handicapped by a shortage of materials. A more plausible explanation of the startling fall early in 1951 is that purchases of tyres were postponed in anticipation of a fall in rubber prices.

view of the rather high level (in real terms) of food imports in the second and third quarters, it is possible that to some extent the demand for foodstuffs has shifted slightly away from home-produced lines; but there does not appear to be any positive evidence of this. In the case of china, the index is based on a relatively small number of indicators, so that the seasonal correction factors may not be very reliable.

The total effect of these variations in particular industries has been that the real output of manufacturing during the first ten months of 1951 has been remarkably stable. This is strikingly brought out if the monthly figures are taken, after making allowance for seasonal variation.

Seasonally Corrected Manufacturing Production (1946=100)

1950				*1951*									
S	O	N	D	J	F	M	A	M	J	J	A	S	O
148	153	152	148	146	151	150	150	151	151	157	149	150	(151)[1]

[1] Provisional.

By February, total output had recovered from the setback at the end of 1950, and except for a sudden spurt in July it has remained approximately constant since. It may be noted that the quite substantial increase which took place in 1950 between September and October has not been repeated.

Since changes in total industrial employment during the last two years have been comparatively small, output per man has varied in much the same way as total industrial production. There was a slight fall in the first quarter of 1951, and since then there has been little change. For some particular manufacturing industries the variations would of course be very much greater.[1]

Seasonally Corrected Industrial Production and Employment (1946 = 100)

		(1) *Production*	(2) *Employment*	(3) (1) × (2) ÷ 100
1950	First Quarter	136	114	119
	Second Quarter	139	114	122
	Third Quarter	141	115	123
	Fourth Quarter	145	115	126
1951	First Quarter	143	116	123
	Second Quarter	144	116	124
	Third Quarter	145	117	124

Note : These figures relate to *all* industries covered by the Interim Index, and not only to manufacturing.

The Rise in Profits

The continued increased in output prices, together with the fall in input prices, has led to a very rapid rise in profits during the second and third quarters, from the low level to which they had fallen in the early part of the year. Of the total increase in gross national product between the first and third quarters—at an annual rate of some £1,200 m. in our estimates—more than two-thirds appears to have gone to profits. It is interesting to compare the movement in our estimates of profits with the figures which we should

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[1] A full analysis of changes in output per man, in the industries covered by the Interim Index of Industrial Production, will shortly be published in the Bulletin by Mr. D. Seers.

TABLE III

Seasonally Corrected National Income and Depreciation, by Distributive Shares

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Wages	4370	4420	4470	4620	4470	4760	4880	4990
2. Salaries	2440	2480	2520	2560	2500	2600	2680	2730
3. Forces' Pay ...	240	235	245	285	250	300	310	315
4. Employers' Contributions ...	195	195	200	200	198	200	200	200
5. Rent	490	495	495	500	496	500	505	510
6. Gross Profits ...	(4,045)	(4,140)	(4,095)	(3,960)	(4,056)	(3,645)	(4,010)	(4,505)
7. Gross National Product at Factor Cost	11780	11965	12025	12125	11970	12005	12585	13250

have obtained if we had taken the more usual definition of profits (*i.e.* charging materials drawn from stock at original instead of current cost, so that ' stock appreciation ' is included in profits) instead of the definition which is used in the White Paper on National Income and Expenditure.

Gross Profits

	1950				*1951*		
	I	II	III	IV	I	II	III
1. Our definition	4045	4140	4095	3960	3645	4010	4505
2. Conventional definition	4180	4290	4370	4475	4355	4270	4280

The two series diverge in the same way—and of course for the same reasons—as the two series for the value of output in Manufacturing which were shown above. In so far as the relation between input and output prices has been changing in a similar way in other sectors, the divergences between the two series may be understated in this comparison. It can be seen that profits as conventionally measured have apparently been lower in 1951 than in the last half of 1950, a change which may perhaps reflect a lag in adjusting output prices to changes in wage-rates and salary-rates.

This shift in the distribution of income must have led to a marked reduction in inflationary pressure. During the early part of 1951 the worsening of the balance of payments seems to have had little effect on inflationary pressure, partly because of the abnormally high level of consumption expenditure, which must have been associated with a temporary fall in the ratio of personal savings to personal disposable income, but also because the rise in input prices was not reflected in the prices actually paid by consumers. The use of first-in-first-out accounting systems means that a worsening of the balance of payments, in so far as it is the result of a rise in the prices of imported raw materials, will not at once have a deflationary effect; it will only begin to do so when previously existing stocks of materials are exhausted, so that output prices are increased. The burden of the rise in raw material prices falls temporarily on firms, and profit margins fall to the extent that raw materials have become more expensive; thus the deflationary effect of the rise in the import surplus is for a time exactly offset by a fall in business savings.[1] Something of this kind seems to have occurred in the last quarter of 1950 and the first quarter of 1951. Since then, however, profit margins have apparently recovered, and the change in the export surplus—a change of more than £1,000 m. (in annual rates) between the third quarter of 1950 and the third quarter of 1951—should by now have brought about a considerable reduction in inflationary pressure, in spite of the increases in government expenditure.[2] As yet, however, there is little evidence of such a development in the market for consumers' goods.

TABLE IV

Final Consumption at Current Prices, Seasonally Corrected

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Food	2575	2605	2565	2680	2608	2725	2860	2905
2. Drink	705	715	745	730	724	770	740	760
3. Tobacco	765	775	775	795	778	815	810	795
4. Rent and Rates ...	620	630	630	635	629	635	650	655
5. Fuel and Light ...	365	375	380	390	376	400	440	440
6. Household Goods	660	650	685	715	679	850	780	680
7. Clothing	970	970	1045	1035	1005	1185	1065	975
8. Other	2195	2230	2275	2260	2241	2335	2355	2410
9. Total	8855	8950	9100	9240	9040	9715	9700	9620

TABLE V

Final Consumption at Average-1948 Prices. Seasonally Corrected

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Food	2375	2360	2390	2390	2379	2375	2390	2375
2. Drink	735	740	790	765	759	845	770	760
3. Tobacco	755	755	750	770	757	785	780	765
4. Rent and Rates ...	615	615	620	620	618	625	630	630
5. Fuel and Light ...	350	355	370	370	361	360	390	390
6. Household Goods	645	635	660	665	650	740	655	560
7. Clothing	930	915	995	945	945	1045	870	780
8. Other	2140	2150	2135	2140	2144	2245	2185	2175
9 Total	8545	8525	8710	8665	8613	9020	8670	8435

CONSUMPTION

Consumption expenditure in the third quarter, after correction for seasonal factors, was somewhat lower than in the second. Total expenditure in money terms remained well over the 1950 levels, but this increase (if we take the third quarter alone) has been more than offset by the rise in prices. Table V shows that the volume of consumption in the third quarter was substantially lower than in 1950.[1] It is interesting to note, however, that the fall has been spread very unevenly over the different items. As in the second quarter, the reduction which occurred was almost entirely concentrated in clothing and household goods. Comparing the third quarter with the first, expenditure on these two items fell in real terms by about 25 per cent. In contrast to this, the volume of consumption of other items has been fairly well maintained.

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[1] In so far as the rise in import prices affects imports of finished goods, a rise in the import surplus resulting from a worsening to the terms of trade will have a more immediate deflationary effect. But even in this case the effect may be delayed if the distributive trades have stocks which were acquired at the previous prices, and apply first-in-first-out methods of accounting.

[2] It should be remembered, however, that part of the increase in imports can be attributed to strategic stockpiling, and to this extent it does not reduce inflationary pressure.

These changes in the volume of personal consumption must be explained either by changes in the real value of personal disposable income or by changes in the propensity to consume (*i.e.* the proportion of disposable income actually spent). It seems that between the second and third quarter the rise in wages and salaries kept pace with the rise in retail prices. If this is so, the changes in real consumption over the three quarters must be explained by short-run variations in the propensity to consume. In our previous discussion we suggested that for the first two quarters the behaviour of consumption could be regarded as the result of a redistribution of purchases between the first and second quarters, resulting from the heavy buying of clothing and household durables in the first quarter, in the anticipation of price increases. The fact that the fall in real consumption in the third quarter has been concentrated in these two items implies that this explanation may still be valid. Expenditure on these items has continued to fall, because of consumers' stockpiling in the first quarter, and perhaps also because of expectations of a fall in the prices of finished textile goods. If however we take real consumption expenditure on all items, and compare the first nine months of 1951 with the corresponding period of 1950, it appears that there has been an increase of about 1 per cent.

TABLE VI

Foreign Trade, not Seasonally Corrected

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Visible Imports ...	2200	2460	2310	2555	2382	3005	3570	3830
2. Invisible Imports	525	520	570	545	540	585	635	725
3. Total payments ...	2725	2980	2880	3100	2922	3590	4205	4555
4. Visible Exports ...	2095	2065	2240	2490	2223	2455	2765	2730
5. Invisible Exports	825	890	950	1015	920	1030	1055	1060
6. Total Receipts ...	2920	2955	3190	3505	3143	3485	3820	3790
7. Surplus (+) or ... Deficit (—) ...	+195	— 25	+310	+405	+221	—105	—385	—765

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[1] It was in fact only slightly over the average level for 1949.

Table VII

Foreign Trade, Seasonally Corrected

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Visible Imports ...	2290	2340	2310	2585	2382	3130	3430	3830
2. Invisible Imports	540	535	535	550	540	595	650	685
3. Total Payments	2830	2875	2845	3135	2922	3725	4080	4515
4. Visible Exports ...	2075	2110	2285	2410	2223	2430	2820	2780
5. Invisible Exports	825	890	945	1020	920	1030	1055	1055
6. Total Receipts ...	2900	3000	3230	3440	3143	3460	3875	3835
7. Surplus (+) or ...	+ 70	+125	+385	+305	+221			
Deficit (—) ...						—265	—205	—680

The Balance of Payments

So far as the balance of payments was concerned, the third quarter was a disastrously bad one. The current account deficit increased sharply, in spite of the improvement in the terms of trade, and even after allowing for unfavourable seasonal factors it was probably running at an annual rate of not much less than £700 m. This deterioration is largely explained by the rise in the volume of imports, although the volume of exports fell off somewhat and there may also have been some worsening of the balance on invisible account. Normally the volume of imports is lower in the third quarter than in the second, but in 1951 it was almost 5 per cent greater ; it was also about 25 per cent greater than in the corresponding quarter of 1950.

This increase in imports was confined almost entirely to raw materials, and may well have been largely due to stockpiling. Over the first nine months of 1951, the volume of raw material imports was about 15 per cent higher than the average for the year 1950. Only a small part of this increase can be explained by the rise in output, since industrial production has only been about 3 per cent higher than in 1950, and the remainder probably consists of purchases for stockpiling. As a rough estimate of the value of these purchases in the first nine months of 1951, we may take 10 per cent of the total value of raw material imports, which gives us a figure (expressed as an annual rate) of about £130 m.

The sharp deterioration of the current account in the third quarter was accompanied by an even greater fall in the gold reserves. Recent figures for British merchandise trade suggest that the current account deficit in the last quarter of the year will be a good deal less spectacular than in the third, but in spite of this the dollar deficit in the last quarter was greater—$940 as opposed to $638 m. The increase is partly explained by the first payment on the American and Canadian loans; but this only accounts for $176 m. dollars, and on the other hand seasonal factors are more favourable in the fourth quarter than in the third. The situation was worst in October, when the deficit was $320 m; for November and December together the figure was $444 m.

The increase in the deficit seems to have been the result of a general worsening of the current account balances of the sterling area countries. Dollar earnings have fallen, mainly because of the fall which has occurred in the prices of sterling area primary products, while imports from the dollar area have increased. A similar development in sterling area trade with Western Europe has led to gold payments to the European Payments Union of $106 m. in the third quarter and $98 m. in the fourth. It seems unlikely, however, that the whole of the incease in the dollar deficit during the last six months of the year can be explained by changes in the balance of current transactions, and speculative factors have probably had some effect.

So far as the United Kingdom's current account balance is concerned, there is some prospect of an improvement. The worsening of the visible trade balance which took place in the third quarter was due to a large increase in the volume of imports, which more than offset the effects of a modest improvement in the terms of trade. During the last quarter there was a further slight improvement in the terms of trade, while the volume of imports has been roughly unchanged. Even if we allow for some further worsening of the balance on invisible account, as the full effects of the loss of Abadan become apparent, it seems likely that the current account deficit will be appreciably smaller than in the third quarter. For the whole of 1951, the deficit seems likely to be in the region of £440 m., although larger figures have recently been quoted. During the next few months the volume of imports may be expected to fall quite considerably, as a result of the import cuts which were announced in November, and also because stock-piling purchases may well be smaller. However, unless there is a further substantial improvement in the terms of trade, which seems improbable, the volume of exports will have to be increased once again if the deficit is to be wiped out altogether; and in any case, it will not be easy to avoid a new dollar crisis during 1952.[1]

TABLE VIII. *Gross National Expenditure at Current Prices, Seasonally Corrected*

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Gross National Product at Factor Cost ...	11780	11965	12030	12125	11970	12005	12585	13250
2. Net Indirect Taxes	1475	1615	1655	1665	1602	1745	1755	1740
3. Gross National Product at current market value	13255	13580	13685	13790	13572	13750	14340	14990
4. Consumption ...	8855	8950	9100	9240	9040	9715	9700	9620
5. Govt. current Expenditure ...	2050	2030	2010	2020	2025	2075	2275	2480
6. Gross Capital Investment ...	(2280)	(2475)	(2190)	(2225)	2286	(2225)	(2570)	(3570)
7. Export Surplus (+) or Deficit (—)	+ 70	+125	+385	+305	+221	—265	—205	—680

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[1] This was written before the Chancellor's recent statement. The new reductions in will, of course, bring a further improvement in the balance as they become efficient.

TABLE IX

Gross National Expenditure at 1950 prices. Seasonally Corrected

	1950				1950 Whole Year	1951		
	I	II	III	IV		I	II	III
1. Gross National Product at average 1950 factor cost	11745	11940	12030	12160	11970	12180	12205	12290
2. Net Indirect Taxes	1585	1585	1610	1625	1602	1705	1645	1615
3. Gross National Product at average 1950 market value	13330	13525	13640	13785	13572	13885	13850	13905
4. Consumption ...	8975	8950	9140	9095	9040	9455	9090	8855
5. Govt. current Expenditure ...	2100	2055	2000	1940	2025	1970	2085	2225
6. Gross Capital Investment ...	(2220)	(2450)	(2175)	(2300)	(2286)	(2300)	(2330)	(3060)
7. Export Surplus(+) or Deficit (—)	+ 35	+ 70	+325	+450	+221	+160	+345	—235

THE ALLOCATION OF RESOURCES

Tables VIII and IX give estimates of the distribution of gross expenditure between its main components, both before and after making allowances for price changes. The most striking aspect of Table VIII is the tremendous increase in the value of gross capital formation at home between the second quarter and the third. This increase reflects, not only the rapid rise in the value of the gross national product, but also the fall in consumption and the spectacular worsening of the balance of payments on current account. This last change alone far outweighed the effect of a considerable rise in Government current expenditure. The rise in the value of gross investment (at an annual rate of £1,000 m.) is therefore the result of (*a*) an increase in investment in stocks, associated with the fall in consumption and the rise in the volume of imports[1]; (*b*) the increase in unit labour cost; and (*c*) the rise in gross profit margins, and therefore in profits per unit of output, which is partly the result of higher output prices, but mainly due to the fall in the prices of basic materials.

When we allow for price changes, the rise in investment between the second and third quarters, though still very marked, is a good deal smaller. This is entirely because of the stability of the gross national product at market prices, when measured in real terms. The effect of the correction for price changes upon the other items is to cause the investment residual to increase: the fall in consumption and the decrease in the export surplus are larger if measured in real terms, while the increase in government current expenditure is smaller. There is no reason to suppose that investment in fixed capital increased much in the third quarter, so that almost all the rise in investment—about £700 m., expressed as an annual rate—must have taken the form of additions to stocks. This is not surprising in view of the considerable increase in raw material imports during the third quarter, and the rapid accumulation of textile stocks which has resulted from the falling real expenditure in this sector.[1]

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[1] And also, though to a smaller extent, with the fall in the volume of exports.

If we consider the first three quarters of 1951 as a whole, it appears that investment in real terms has been about £250—300 m. greater (at an annual rate) than in 1950, and perhaps a slight fall may be anticipated. However, armament expenditure is probably increasing quite fast now, and this is likely to continue for some time. Given the present rate of increase in output, it is clear that even the abnormally low level of consumption in the third quarter of 1951 can only be maintained—unless the terms of trade improve to an extent which it would be quite unrealistic to expect—at the cost of a large deficit in the balance of payments. The slight increase in personal consumption which has taken place during the first nine months of 1951 has only been possible, in the face of less favourable terms of trade, because of the relatively slow pace of rearmament, and because there has been an increase in real resources available. The immediate needs of the defence programme can hardly be made compatible with external solvency unless real consumption is reduced.[2]

Even if we assume a further improvement in the terms of trade, and some fall in the volume of imports, the balance of payments cannot be restored without a further considerable increase—probably of at least 15 per cent—in the volume of exports.[3] With defence expenditure increasing in real terms, and the real national product rising only at a very slow rate, almost the whole of this increase would have to be achieved at the expense of personal consumption, which would have to be reduced below its present level by about 4–5 per cent.[4] In so far as industrial output increased more rapidly, the necessary fall in the standard of living would of course be smaller; but such a development cannot be relied on. The evidence suggests that, given better supplies of materials, output in several industries might be expected to increase rapidly, but the prospect of an improvement in supplies is at present very uncertain.

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[1] Between May and September the value of stocks held by wholesale textile houses rose by about 50 per cent.

[2] We have suggested above that during the third quarter there was a marked rise in profits, and a fall in inflationary pressure, and that it was not until this period that the effect of the previous rise in import prices became fully apparent. If this view is correct, some fall in real consumption should have taken place, although the fall which actually occurred during the third quarter can be otherwise explained, and data for the fourth quarter are not yet available. However, there are also some indications that real consumption may have been maintained fairly successfully as a result of recent increases in wages and salaries, and that the effect of the rise in import prices, and the increase in the import surplus, may have been offset to some extent by a failure to maintain conventional profit margins in the face of rising labour costs. In so far as this is the case, it might be necessary to take further positive action—such as imposing higher taxation or direct restrictions on supplies of goods—in order to bring about the required fall in personal consumption.

[3] Even this would leave us with a serious dollar deficit, though it would do a great deal to check the fall in the reserves.

[4] This argument must be qualified in the light of the Chancellor's statement. The import cuts, together with the new restrictions in the sale of engineering products in the home market, will tend to reduce consumption (and to some extent investment) directly, though they do so only at the cost of bringing about an increase in inflationary pressure which may have the effect of discouraging exports.

Moreover, even if the necessary fall in consumption is brought out, this in itself can no longer be regarded as a sufficient condition for the increase in exports that is needed. One of the half-explicit assumptions of economic policy in the last few years has been that, given an effective policy of ' disinflation ', the balance of payments will to a certain extent look after itself, and is unlikely to become seriously adverse so long as inflation at home is avoided. The corollary of this view is that any significant reduction of inflationary pressure at home will, by preventing the home market from competing too vigorously for potential exports, lead to an equivalent increase in the volume of exports. Until recently this assumption seems to have been fairly realistic, but it is now far less plausible. There are two main reasons for this. First, rearmament, together with the relative stagnation of industrial output, means that the available supply of these goods which we can most easily sell will probably be reduced[1]; and the other export lines are likely to meet with increasingly severe price competition. Secondly, as we have stressed before, the resources released by a disinflationary policy cannot easily be absorbed in the heavy industries, where an increase in output is vital, not only because of the immobility of labour, but also because the ability of the heavy industries to expand is limited by shortages of fuel and materials. So long as these acute structural problems remain, a policy of disinflation is by itself quite inadequate. To analyse the present economic situation merely in terms of the broad distribution of resources can only lead to dangerous over-simplication of the issues.

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NOTES

1. Revisions have been made to some of the figures which were published in our previous article in the October BULLETIN. The only important revision is in the series giving the output of 'Agriculture, etc.' in fixed prices. Here we are once again indebted to the Ministry of Agriculture, since we have been able to make use of the Ministry's estimates of changes in the real output of agriculture. It must be emphasised, however, that our series is defined in the same way as Item 1 of Table 1 in the White Paper on National Income and Expenditure, so that it covers not only agriculture but also forestry and fishing. We therefore had to estimate changes in the output of forestry and fishing. The indicators used were home production of timber

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[1] The new measures which the Government is taking to reduce sales of engineering products will to some extent effect this tendency.

(hardwood, softwood and pitwood), for forestry, and landed weight of fish, for fishing.

2. In Appendix III of our previous article we published a National Retail Price Index from the beginning of 1948 onwards, which was derived from the official estimate of consumption at current prices and at fixed prices. The following table reprints (with two revisions) the index-numbers for the first half of 1951, together with new index-numbers for the third quarter.

National Retail Price Index (1948 = 100)

	Total (current) weights)	Total (1948 weights)	Food	Drink	Tobacco	Rent, rates, water	Fuel and light	House-hold goods	Foot-wear	Other clothing	Other goods and services
1951											
I	108	107	113	94	104	102	110	115[1]	108	115	105
II	113	112	124	95	104	104	111	120[1]	116	122	108
III	114	114	124	100	104	104	113	122	126	126	109

[1] Revised.

3. The following table gives the seasonal patterns in the four-monthly production series for the particular industries and industrial groups in the manufacturing sector. Details of other seasonal patterns were published in Appendix II of our previous article.

Seasonal Patterns in Index-Numbers of Industrial Production
(Average Percentage Fluctuation, about trend)

	First four m'ths	Second four m'ths	Third four m'rhs
China	+3½	—5½	+2
Glass	+3	—3	0
Bricks	+ ½	—1	+ ½
Total, Heavy Industry Group	+1½	—3½	+2
Ferrous Metals	+3	—5	+2
Non-Ferrous Metals	+3	—4½	+1½
Engineering	+1	—3	+2
Vehicles	+2	—3	+1
Other Metal Goods	+3	—5	+2½
Precision Instruments	+2½	—5½	+3
Chemicals	+1½	—4	+2½
Total Textile Group	+4	—5	+1
Textiles	+2½	—4½	+2
Clothing	+4	—2	—2
Leather	—4½	—10	+15
Total Food Group	—1	— ½	+1½
Food	— ½	0	+ ½
Drink and Tobacco	—1½	—1	+2½
Wood	0	—3	+3
Paper	+4	—2	—2
Other	+1	—6	+4½

NOTE. *All figures in Tables are in £m, and at annual rates.*

A 'RENT, DIVIDENDS AND INTEREST' ACCOUNT FOR 1948

The recent proposal for the limitation of dividends has caused some discussion of their inflationary significance. This is generally treated as a much simpler problem than it is, and the reason for the over-simplification is that dividends are regarded as analogous in this respect to other forms of factor payments. But this is not so. Wages and salaries, transfer payments, and the profits of non-corporate trading concerns pass directly and entirely into the hands of individuals who are potential spenders. The inflationary effect of these forms of income is known as soon as it can be established how much of any increase in them will be saved. In the case of rent, dividends and interest it is necessary to know first how much of any increase will pass into the hands of potential spenders, which means, broadly speaking, into the hands of individual persons. And the proportion which will do so is not, as in the case of wages and the other forms of income mentioned above, one hundred per cent. The purpose of this article is to provide some quantitative illustration of this proposition and to cultivate a relatively untilled field in the national accounts.

The year chosen is 1948.[1] For that year the following figures of payments and receipts of rent, dividends and interest are collected from the National Income White Paper.[2]

TABLE I

Rent, Dividends and Interest Account, 1948

£ million

Payments		*Receipts*	
By companies	796	By companies	415
By public corporations...	78	By public corporations...	15
By public authorities	601	By public authorities	160
By non-corporate public enterprises...	79	By persons	1433
By non-residents	179	By non-residents	180
In rent	470		
	2203		2203

First, we will widen the scope of this account. The definition of persons in the National Income White Paper includes the Life Funds of Life Insurance Companies, and non-profit-making bodies. The investment income of the former amounted to £85m in 1948, and they paid out annuities of £12m.[3] Since receipts of persons in the above table are shown after deducting payments by persons, there will be £73m of the total receipts of £1433m attributable to the particular body of ' persons ' represented by Life Insurance Companies. Non-profit-making bodies are synonymous with what the Inland Revenue call ' Charities '; and these include, in addition to what one would normally regard as a charity, colleges, hospitals, public schools, literary and scientific institutions, friendly societies,[1] trade unions to the extent of their provident benefits, savings banks and cathedral bodies.[2] £49m came to the notice of the Inland Revenue in 1948–9 as accruing to these bodies in rent, dividends and interest.[3] But this includes only that part of their investment income which is subjected to taxation at source. Charities are exempt from tax: consequently their income comes to the notice of the Inland Revenue only when it has been already taxed and therefore occasions a claim for repayment. Deduction of tax at source is the rule in most interest payments, but income from certain government securities, such as 3½ per cent war loan, is exempted from it, and with the same end in view certain private arrangements may be made. This might add some £16m to the £49m of which the Inland Revenue is aware. When we have purged our definition of ' persons ' of Life Insurance Companies and Charities, it corresponds much more closely to what one would expect it to mean; namely, individuals. The investment income of ' persons ' was £1433m.; that of individuals amounts to £1295m.[4]

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[1] The only justification for the choice is that it happens to fit in with some of the author's other work.

[2] Cmd: 8203.

[3] Extracted from the balance sheets of the companies. Strictly speaking, this £12m is not a correct measure of current interest payments by Life Insurance Companies. On the one hand, some part of their outgoings on annuities represents the repayment of the capital sum with which each annuity was originally bought. No more than the interest on that sum should be included here. On the other hand, when a Life Insurance Company pays over a capital sum in fulfilment of a Life Policy other than an annuity contract, some part of that sum represents the interest on the premiums paid. This is not included in the £12m shown, but ought to be included in interest payments made by Life Insurance Companies. In practice it is impossible to distinguish that part of annuities or life policy claims which consists of capital repayment and that part which is in principle of the nature of interests.

Secondly, having reached a figure for receipts by individuals, we have to bear in mind that what it represents is receipts less payments. There are two ways in which an individual may make a payment of interest. In the first place he may be paying interest on a mortgage. Total mortgage interest amounted to £43m in 1948 of which £34m was paid to Building Societies[5] and £9m to Life Insurance companies.[2] In the second place, he may be making gifts to non-residents or remitting funds abroad on emigration; these being included among non-residents' receipts of rent, dividends and interest from the United Kingdom and amounting to £44m[7] in 1948. Net receipts of rent, dividends and interest by individuals amount to £1295m; gross receipts, before deducting interest paid out in these two ways, are therefore £1382m.

Thirdly, we must make a correction to receipts by Public Authorities. These ought to include the investment income of the Issue Department of the Bank of England, which is regarded in the National Income White

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[1] But not working men's clubs and benevolent societies which are registered under the Friendly Societies Act but not as Friendly Societies.

[2] I am indebted to the Inland Revenue for this definition.

[3] 93rd Report of the Inland Revenue (Cmd. 8103) Table 18.

[4] The correspondence is not exact; still included among ' persons ' are certain non-profit-making bodies which are not regarded as charities. These come under the loose heading of ' social clubs ' and the amount of their investment income is not likely to be large.

[5] Annual Abstract of Statistics, 1938–49. Table 306. Some mortgage interest is paid by companies; but it is not likely to be large.

[6] See Table IV.

[7] Item A5 in Table I of Cmd. 8201. (Balance of Payments White Paper 1940–50, no. 2).

Paper as a government agency. This has, however, been omitted from the official definition of Central Government income from property.[1] It amounted to £12m[2] in 1948 and has been added in. It appears also that the profits of the Ministry of Supply and the Board of Trade have been understated to the extent of £7m; this sum must also be added to the receipts of Public Authorities. These two corrections involve an equal decrease in the receipts of individuals, since this is the residual item.

As a result of these changes, we have a revised rent, dividends and interest account. In Table II this is expressed in the form of a matrix, and our task is to fill up its empty spaces. In other words, we have to divide up the investment income of each class of recipient into its various sources, determining how much is derived from each class of payer. The full results are summarised in Table VI, and the following paragraphs describe, for each class of recipient, how they are achieved.

(1) *Individuals*

Receipts of individuals from invididuals are by definition nil. From non-corporate public enterprises they are also nil; for these hand over their proceeds only to public authorities and to non-residents. Annuities paid by Life Insurance Companies go almost entirely to individuals, but some small part go to non-residents insuring with British Companies. Of the total premiums received by British companies about 6 per cent are in respect of overseas business;[3] so we may assign this proportion of the annuities to non-residents, amounting to rather under £1m. Receipts of individuals from Life Funds are therefore £11m. This leaves us with £1352m to divide between rent, and dividends from companies, public corporations, public authorities and overseas. Here we have recourse to some results of Mrs. Langley's.[4] But before making use of these we can go some way in allocating certain types of interest income which lie outside the figures quoted from Mrs. Langley and which can be assumed to accrue entirely to individuals. Among individuals' receipts from companies, we know there are the following: dividends on purchases from Co-operative Societies amounting to £36m;[5] interest on deposits with Building Societies amounting to £20m;[6] and deposit interest paid by banks amounting to £10m. The latter figure is derived by taking the monthly average of Deposit accounts with the London Clearing Banks in 1948, which come to £2062m, and applying a rate of one half of one per cent. Among individuals' receipts from public authorities we know that there is £67m credited to depositors in the Post Office and Trustee Savings Banks.[7] These four sources of individuals' investment income account for £133m in all, leaving £1219m to be distributed. Mrs. Langley's

[1] Note to item 20 of Table 20, Cmd. 8203. [2] 'Records and Statistics,' July 7th, 1951, p. 1.

[3] Annual Abstracts of Statistics, 1946–49. Table 305.

[4] The results referred to are unpublished at the date of writing but derive from Mrs Langley's work on the distribution of capital in private hands (see BULLETIN of Oxford University Institute of Statistics December 1950 and February 1951) I am grateful to Mrs Langley for her permission to draw on her work

[5] See Co-operative Societies Statistical Summary, 1938–39, published by Registrar of Friendly Societies.

[6] See Annual Abstract 1938–49. Table 306. [7] See Annual Abstract 1938–49. Table 307.

TABLE II

Revised Rent, Dividends and Interest Account U.K., 1948 (£ million)

Payments by :— / Receipts by :—	Individuals	Life Funds	Rent	Companies	Public Corporations	Other Public Enterprises	Public Authorities	Non-residents	Total
Individuals									1363
Life Funds									85
Non-profit-making bodies ...									65
Companies									415
Public Corporations									15
Public Authorities									179
Non-residents									180
Total	87	12	470	796	78	79	601	179	2302

figures for the yield of the types of capital in which we are interested are shown in Table III, and it is immediately evident that a large discrepancy exists between her total and ours. Some of this may be accounted for by the yield on settled property and on properties which are under £100 in value and therefore exempt from death duties. But the bulk of the discrepancy must be due to the inevitable shortcomings of the sample on which her calculations are built. This sample consists of those property owners whose dutiable possessions come under the scrutiny of the Inland Revenue for death duties in 1948–9, and these are roughly equivalent, after allowing for the time lag between death and assessment, to those property owners who died in 1948. Mrs. Langley's procedure is to regard these as a random sample of all property owners.[1] Total capital in private hands can then be found by multiplying the amount of capital belonging to those who died in each age-group by the inverse of the probability of death in that age-group. This involves the assumption that the property-owners who died were subject to the general mortality rate for their age-group; for it is the general mortality rate for each age-group which is used as a multiplier. But it is thought that the property-owners were subject to a somewhat lower mortality than the population as a whole. This will be so especially among those who have recently received their property from relatives or others likely to die; the latter having transferred it in order to avoid death duties. Such transfers will not be made to the unhealthy, and their recipients will therefore tend to have a lower probability of death than the general experience of their age-group. The use of the latter as a multiplier will underestimate total private capital especially when ' gifts *inter vivos* ' are prevalent, and in this period the weight of death duties was such that they probably were. For our purposes, however, this does not matter. It is the division between different types of capital that concerns us, and there is no reason to suppose that the factors which cause the death duty statistics to give an underestimate of total capital in private hands, will also misrepresent its composition. Consequently we will assume that our remaining £1219m of individuals' investment income is divided between the different sources as in Table III; that 49 per

TABLE III

Yield on Various Types of Capital, 1948

£ million

(Mrs. Langley's calculations)

		%
British Government and Municipal Securities* (including government-guaranteed securities)	179	21.2
Shares, debentures, etc., in British companies.†	411	48.6
Foreign and Dominion securities	47	5.6
Land and Houses	208	24.6
	845	100

* Excluding interest on deposits in Post Office and Trustee Savings Bank.

† Excluding dividends on purchases from Co-operative Societies, interest on deposits with building societies and deposit interest paid by banks.

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[1] For details of the calculation, see BULLETIN of Oxford University Institute of Statistics, Dec., 1950, and Feb., 1951.

cent comes from companies, 6 per cent from abroad, 25 per cent from rents and the remainder from British government and government guaranteed securities. This remainder, however, has still to be divided between receipts of interest from public authorities and from public corporations. Here the death duty statistics do not help, since their classification of British Government Securities includes the stock of nationalised industries. The only course open to us is to assume that individuals receive the same proportion of the interest paid by public corporations as they do of the interest paid by public authorities and public corporations together.[1]

(2) *Life Funds*

It is not difficult to discover the distribution of the assets of Life Insurance Companies between different types of security. The Economist Insurance Survey,[2] tabulates the asset holdings of a large number of offices, and where the distribution is not sufficiently detailed for our purposes we can have recourse to a Parliamentary answer given on Oct. 25th, 1949.[3] The latter refers to all Assurance Companies, Life and other : but it is useful because it shows separately their holdings of Government guaranteed securities[4] and of local government securities. To take advantage of this, we assume that the proportion of their assets which Life Insurance companies held in these forms in 1948 was the same as that observed by all Insurance Companies together. Each type of asset, however, did not bear the same rate of interest. Consequently, it was further necessary to assign an appropriate rate to each in order to find the correct weights with which to divide up the investment income of Life Insurance Companies between its different sources. The results are shown in Table IV.

TABLE IV

Assets and Investment Income of Life Insurance Companies in 1948

Type of Asset	% of total assets	Rate of Interest Assumed	£ million Income from Type of Asset shown
Mortgages	9.7	4.0	9
Property	5.7	3.0	4
British Government and local Government securities	36.1	3.0	26
Public Corporation Stock	7.4	3.0	5
Companies	26.8	5.0	32
Overseas*	7.7	—	9
Cash	6.6	—	—
	100		85

*Consists partly of Dominion and Colonial government and municipal securities (5.9 per cent), and partly of the residual item ' Other Investments '.

(3) *Non-profit Making Bodies*

That part of the income of non-profit-making bodies which came to the notice of the Inland Revenue in 1948–9 arose as follows :

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[1] *I.e.* 46 per cent.

[2] *Economist*, Nov. 18th, 1950.

[3] Economist, Records and Statistics, Nov. 19th, 1949.

[4] Consisting in 1948 of British Transport and British Electricity stocks.

	(£ million)
Schedule A	19
Schedule C	10
Schedule D	20
	49

Of the £10m under Schedule C, some part is derived from the securities of overseas governments. Total gross income under Schedule C amounted to £238m, and out of this £21.5 was from abroad. Assuming that the income of non-profit-making bodies under Schedule C was divided in the same way, they would receive £1m from overseas. Their income under Schedule D must come entirely from companies and public corporations. Any receipts they may have from those government securities which are not taxed at source,[1] or foreign non-government securities, which cannot be taxed at source, will not come to the notice of the Inland Revenue. Thus we have only to decide how much of the £20m which accrues under Schedule D come from companies and how much from public corporations. If the division was the same for non-profit-making bodies as for all recipients of dividends and interest from these two sources, they would have £2m from public corporations. In fact they probably have more than this from public corporations, since the guaranteed nature of the latter's securities makes them a preferable investment for the funds of non-profit-making bodies than the riskier stock of companies. We will assume £4m, leaving £16m for their receipts from companies. The remaining £16m of their income, which does not come within the province of the Inland Revenue must come almost entirely from War Loan and other Government Securities not taxed at source. Perhaps £1m might come from abroad. This completes the allocation for non-profit-making bodies, which is as follows:

TABLE V

Interest Received by Non-Profit-Making Bodies, 1948

£ million

From rent	19
From companies	16
From public corporations	4
From public authorities	24
From abroad	2
	65

(4) *Companies*

Here we cannot go very far. We know that receipts from individuals consist of the £34m interest on advances on mortgage by Building Societies.[2] Their receipts from Life Funds can be taken to be nil. Their receipts from other companies are by definition nil, since their total investment income is reckoned after deducting payments from one company to another.[3] Public enterprises also pay no interest to companies, but only to the government and to overseas.[4]

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[1] These are assessed under Schedule D, not Schedule C.

[2] Annual Abstract of Statistics, 1938–49. Table 306.

[3] See note to item 12 of Table 3, N.I.W.P., 1946–50. (Cmd. 8203), p. 57.

[4] *Ibid.*, notes to items 21 of Table 3 and 10 of Table 6, pp. 57 and 59.

(5) *Public Corporations*

As in the case of companies, receipts of interest by one public corporation from another are excluded and therefore nil. None receives interest from individuals, Life Funds and public enterprises.[1] Their receipts from other sources can be found without difficulty from their published accounts. These reveal rents amounting to £6.5m and interest on other investments of £6.4m, leaving a discrepancy of £2.1m. This must be attributed to the imputed rents of premises occupied by the various corporations. Of the interest on other investments only £4.0m can definitely be identified with British government securities, mainly in the ownership of the Transport Commission. Some part of the remainder, probably slightly under £1m, is derived from shares in privately-owned companies held mainly by Cable and Wireless, and the Transport Commission. The rest can with confidence be ascribed to government securities. There is no trace of any holdings overseas.

(6) *Public Authorities*

This can be broken down into its sources with the aid of published sources. Rents received come partly from Crown Lands, but mostly from the letting of government premises, the proceeds of which were used by departments as appropriations in aid of their expenditure. Among interest received from companies the most important item was the dividend on the government's holdings in the Anglo-Iranian oil company, amounting to slightly over £3m; the rest was made up of receipts under various measures for the assistance of industry such as the Distribution of Industry Act, Trade Facilities Act and similar legislation. From the Bank of England, the National Coal Board and Cable and Wireless the government receives annual payments to cover the interest on compensation stock.[2] These account for the greater part of its receipts from public corporations; the rest comes from the Local Loans' and National Insurance Funds' holdings of their securities. Public authorities' receipts from other public authorities are not defined as nil; the practice in the case of companies and public corporations is not followed. This is a large item, which in the main reflects the considerable amount of the National Debt which is ' internally ' held. It consists almost entirely of the interest paid by local authorities to the central government on borrowings from the Local Loans Fund,[3] the investment income of the Issue Department of the Bank of England and the proceeds of that part of the assets of the National Insurance Funds which is held in government securities.[4] There is also the investment income of certain special funds maintained by the Local Authorities; this is assumed to come entirely from government stock. The receipts of public authorities from overseas include the £8m[1] of direct taxes paid by non-residents. They embrace also the interest on British holdings of Suez canal shares and on the advance under the Andes Agreement to Argentine, as well as on a number of small overseas loans. Finally, there are profits of public enterprises which, apart from the Dominions' share of the profits of the U.K. Dominions Wool Disposal (Joint Organisation), are handed over entirely to the government; and these consist of the United Kingdom's share of the wool profits together with the trading profits of Local Authorities, the Board of Trade and the Ministry of Supply, and the notional interest carried in their accounts by government trading branches.

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[1] Public enterprises are distinct from public corporations, see N.I.W.P. 1946–50, p. 59, notes to Table 6.

[2] No special stock was issued in these cases ; the former owners were compensated with ordinary government stock.

[3] Local Loans Fund, Accounts 1948–9 (Dec. 1949).

[4] Accounts of National Insurance Funds 1948–9 : see also Pember and Boyle, ' British Government Securities in the 20th century.'

(7) *Non-residents*

Receipts of non-residents from persons are the value of migrants' remittances, legacies and private gifts.[2] From Life Funds they are estimated to receive £1m, the value of annuities paid to Overseas customers. Receipts from public enterprises embody the share of the Dominions in the profits of Wool Disposal. Since non-residents' receipts from non-residents nowhere touch the National Income White Paper, they must be reckoned as nil. Of interest paid to non-residents by companies, public corporations and the government we know nothing. We can, however, plausibly assume that rent paid to non-residents is negligible.

From the information collected we have gone some way towards a complete classification of each source of income according to its origin. Immediately we can go a little further. The columns showing payments by companies and by non-residents have but one unfilled row. We can therefore find receipts by non-residents from companies and by companies from non-residents as residuals.[3] Moreover if we adopt the assumption that rent paid to non-residents is nil, we can find as a residual the rent received by companies. This is the large sum of £127m; but undoubtedly a substantial part of it represents the imputed rents of owner-occupied premises.

We are now left with four items unfilled; receipts of companies from public corporations and from public authorities, and receipts of non-residents from public corporations and public authorities. If any one of these four is known, the other three are immediately determined. But there is no satisfactory means of estimating any one of them directly.[4] This means that we are driven back upon some assumption about their relationship to each other. Fortunately, the securities of public corporations and public authorities are very similar to each other in quality; the former have a government guarantee and are hardly distinguishable from gilt-edged stock. Consequently one would not expect to find much evidence of a preference for receiving interest

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[1] Estimated, as a residual, from item 5 of Table 20, Cd. 8203.

[2] *I.e.* item A.5. of the Balance of Payments White Paper.

[3] The former should not be taken as a measure of the extent of foreign participation in British companies, since it includes both film remittances and taxes paid by British companies to foreign governments. The size of the latter is due to the fact that it includes the profits of British companies operating abroad (other than those engaged in the shipping, insurance, and oil industries).

[4] This point is amplified in the Appendix.

from the one kind of security rather than from the other. This view requires some qualification, however. While it could reasonably be expected to hold in the case of long-term securities, it would not be true of all securities, since there are also a large number of short-term securities, namely Treasury Bills, among the debts of public authorities. This means that in the case of individuals, for example, we could not assume that the ratio of the interest they receive from public corporations to the interest they receive from public authorities would be the same as the ratio of total public corporation interest to total interest paid by public authorities. For the interest paid by public authorities includes the interest on a number of securities of a short-term nature which individuals do not hold. But if we confine our attention to companies and non-residents, this difficulty does not arise. For both companies and non-residents hold Treasury Bills, and indeed are almost the only holders of Treasury Bills. Consequently it will be reasonable to make the assumption that since the interest received by companies and non-residents together from public corporations and public authorities is £220m, and from public corporations alone is £24m, the interest received by each from these two sources, will be divided in the same proportion. On this argument, non-residents will receive £5m[1] from public corporations and £156m from public authorities.

The upshot of these results, which are summarised in Table VI, is that in 1948 65 per cent of rent payments, 83 per cent of dividends, 46 per cent of public debt interest, and 41 per cent of investment income from overseas passed directly into the hands of individuals. These percentages, when account has been taken of direct taxation, are rough indicators of the inflationary potential of any increases in such forms of income. The comparatively low percentage of rent which accrues to individuals is partly attributable to the inclusion of imputed rents of owner occupied premises, and these are largely the rents of factories and therefore fall in the company sector. Thus any increase of rents which might follow a lifting of rent contro lwould be more heavily inflationary than indicated since it would involve those rents which are actually paid. An increase of dividends would also be slightly more inflationary than indicated; for dividends paid to non-residents include film remittances and taxes paid by companies to overseas governments, which are not dividends in any normal sense. They amounted to approximately £20m. However, it should be borne in mind that dividends paid by companies to companies are excluded by definition from Table VI. Consequently, increases in *declared* dividends will have a smaller inflationary potential than our figures imply. The percentages of each type of interest which go to individuals measure only the immediate impact of any increases in such incomes. In so far as such incomes go to other sectors there may be secondary effects. Increases in the investment income of companies, for instance, may in the next period make possible

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[1] *i.e.* $\frac{24}{220} \times$ £45m

TABLE VI

Origins and Destinations of Rent, Dividends and Interest, U.K. 1948 (*£ million*)

Payments by:— / Receipts by :—	Individ-uals	Life Funds	Rent	Com-panies	Public Corpor-ations	Other Public Enter-prises	Public Authori-ties	Non-residents	Total
Individuals	—	11	305	663	36	—	275	73	1363
Life Funds	9	—	4	32	5	—	26	9	85
Non-profit-making bodies ...	—	0	19	16	4	—	24	2	65
Companies	34	0	127	—	(19)	—	(156)	79	415
Public Corporations	0	0	9	1	—	—	5	0	15
Public Authorities	0	0	6	7	9	66	75	16	179
Non-residents	44	1	0	77	(5)	13	(40)	—	180
Total	87	12	470	796	78	79	601	179	2302

NOTE.—The figures in parenthesis are the ultimate residuals. They are not the only residuals ; *e.g.* the figure for receipts by non-residents from companies is a residual in the column of payments by companies. The brackets indicate the least reliable figures in the Table; the unbracketed items have varying degrees of firmness, which must be assessed for each individual item from the text.

a higher dividend; and if non-residents get more, either they may buy more from us, or a restriction of imports may become necessary to close the deficit in the balance of payments, so that a direct or an indirect pressure is put upon the home market. But the immediate impact of increases in rent, dividends and interest will tend to be limited to that part of them which accrues after tax directly to individuals.

The customary conclusion to a statistical exercise is to issue a modest disclaimer that the figures arrived at ' indicate only the broad quantitative magnitudes' of what they purport to show. This assertion I make with more hope than confidence. The estimates embodied in Table VI are no more than a careful attempt to consolidate a variety of data with the aid, where necessary, of what is hoped are reasonable assumptions. While the horizontal rows relating to Life Funds, non-profit-making bodies, public corporations and public authorities can be looked upon as reasonably reliable, the distribution of individuals' receipts between their different sources are subject to the unknown errors of a sample based on the holdings of only those individuals who die and one whose grossed-up total at current rates of return does not tally at all easily with the official figures of rent, dividends and interest received. The receipts of companies and non-residents from their different sources are largely residuals and reflect these errors. Consequently I should describe the results of this enquiry as a *jeu d'esprit*, which arises from an interest in the participation of each sector of the economy in the capitalisation of the others and which it is hoped may arouse a similar interest in other quarters more qualified to produce accurate and reliable figures.

J. R. SARGENT.

APPENDIX

It was mentioned earlier that it had been found impossible to make a satisfactory direct estimate of the amount of interest received from public authorities by companies. The reason for this is the under-valuation, in the published accounts of companies, of their holdings of government securities. From various sources it is possible to collect figures of these securities in the ownership of the various organisations defined by the National Income White Papers as 'companies.' These are shown in Table VII. Let us assume that all the holdings are valued in Table VII at par. Then to calculate the interest on securities other than Treasury Bills we can apply the average nominal rate on internal non-floating debt, which in 1948 was 2.932 per cent;[1] and this yields £93.5m. The interest on Treasury Bills of ½ per cent will be £6.3m. We must also add in the interest on Treasury Deposit Receipts and Tax Reserve certificates, which are held entirely by 'companies,' and this amounted to £12.1m in 1948–9.[2] This means that total national debt interest received by 'companies', assuming their holdings to be valued at par, amounted to approximately £112m.

TABLE VII

*Holdings by Companies of British Government Securities at mid-*1948

(£ million)

	Treasury Bills	*Other Securities*
London Clearing Banks	760	1480
Scottish Banks	10	400
N. Irish Banks	...	60
Other English Banks	10	120
	780	2060
Discount Houses	470	220
Co-operative Societies	...	250
Building Societies	...	150
Insurance Companies (other than Life)	...	200
Collecting Societies	...	60
Industrial Companies	...	250
Total	1250	3190

* Treasury Bill holdings: it is only possibly to distinguish Treasury Bills from other bills held by Banks in the annual balance sheets of six of the eleven London Clearing Banks and four of the Scottish banks. Ratios here obtained were applied to total bill holdings. For discount houses only total bill holdings are known; Treasury Bill holdings were reckoned by making use of the Economist's view (July 24th, 1948) that 'the volume of commercial paper in the discount market may now be approaching £100m.'

† Other Government Securities were estimated as follows: London Clearing Banks: 'investments' in monthly statement July 1948. Other banks and discount houses: interpolation between 'investments' in annual balance sheets. Co-operative Societies: annual balance sheet. Building Societies: Economist's estimate (April 8th, 1950). Insurance Companies other than Life: Parliamentary answer recorded in 'Records and Statistics', Nov. 19th, 19148, p. 474, after deducting figures for Life Companies which went to the making of Table IV. Industrial Companies: found from quarterly summaries of balance sheet figures in the 'Economist', after multiplying by a factor obtained by reference to the ratio of the paid-up capital of the companies included in the Economist's sample to total paid-up capital of public companies (Board of Trade Annual Report on Companies), excluding banks and discount houses.

[1] This assumes that the distribution by specific securities of the holdings of 'companies was the same as that of the internal non-floating debt as a whole.

[2] Finance Accounts of U.K. 1948–9, p. 31.

But do we mean ' total national debt interest ' ? No specific mention has been made of Local Government stock; yet the interest paid by local government authorities is included in the £601m shown in Table VI as paid by Public Authorities, and also therefore in the £156m shown by Table VI as received from Public Authorities by companies. The question, then, is whether the interest on local government stock can account for the difference of £44m between the £156m deduced from Table VI and the £112m estimated from Table VII. It may be that local government stock is already included to some extent in the figures of Table VII. But even if it is totally excluded there, it seems that the difference of £44m is too large to be explained by this cause alone. From the proportion of Local Government securities to Central Government securities in the Death Duty statistics used by Mrs. Langley, we should conclude that individuals receive £18m of the interest on the former. From the sources used to find the holdings of Life Funds,[1] we can assign these institutions £3m. And we know that Local Authorities paid £17m to the Local Loans Fund.[2] This accounts for £38m of a total of £67m paid in interest by Local Government Authorities. After allowing for payments to non-residents, public corporations and non-profit-making bodies, we could hardly be left with more than £20m of Local Authorities' interest to attribute to companies. This means that even if we assume that Local Government stock is altogether excluded from Table VII, our direct estimate of interest received by companies from public authorities, which is £132m, is some £24m short of the £156m which emerges from Table VI.[3] This indicates that there is some undervaluation in the published holdings of companies, and this will be greater than is suggested by our figures in the case of long-term securities, since on Treasury Bills it is unlikely to exist at all. Moreover, this is undervaluation in the sense that securities held were valued at below par. At this period the bulk of government securities stood above par, so that their undervaluation in the sense of being reckoned at below their market prices, was greater still.

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[1] See Table IV. [2] See Local Loans Fund, Accounts 1948–9 (Dec. 1949).

[3] If we replace the £156m. in Table VI by our direct estimate of £132m., the result is to make interest received .by non-residents from public corporations a negative quantity of £19m, *i.e.* it leads to a inconsistency.